



PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031
 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

	Application Number	10/709,103
	Filing Date	04/14/2004
	First Named Inventor	Kuo-Wen CHEN
	Art Unit	
	Examiner Name	
Total Number of Pages in This Submission	3	Attorney Docket Number
		OTMP0075USA

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input checked="" type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Remarks	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below):
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Winston Hsu, Reg. No.: 41,526
Signature	
Date	4/15/2004

CERTIFICATE OF TRANSMISSION/MAILING

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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 0.00)

Complete if Known

Application Number	10/709,103
Filing Date	04/14/2004
First Named Inventor	Kuo-Wen CHEN
Examiner Name	
Art Unit	
Attorney Docket No.	OTMP0075USA

METHOD OF PAYMENT (check all that apply)

 Check Credit card Money Order Other None Deposit Account:

Deposit Account Number 50-0801
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The Director is authorized to: (check all that apply)

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FEE CALCULATION

1. BASIC FILING FEE

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description	Fee Paid
1001 770	2001 385	Utility filing fee	
1002 340	2002 170	Design filing fee	
1003 530	2003 265	Plant filing fee	
1004 770	2004 385	Reissue filing fee	
1005 160	2005 80	Provisional filing fee	
SUBTOTAL (1)		(\$ 0.00)	

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

Total Claims	Independent Claims	Multiple Dependent	Extra Claims	Fee from below	Fee Paid
			-20** =	x	=
			- 3** =	x	=

Large Entity Fee Code (\$)	Small Entity Fee Code (\$)	Fee Description
1202 18	2202 9	Claims in excess of 20
1201 86	2201 43	Independent claims in excess of 3
1203 290	2203 145	Multiple dependent claim, if not paid
1204 86	2204 43	** Reissue independent claims over original patent
1205 18	2205 9	** Reissue claims in excess of 20 and over original patent
SUBTOTAL (2)		(\$ 0.00)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code (\$)	Fee Code (\$)	Fee Description	Fee Paid
1051 130	2051 65	Surcharge - late filing fee or oath	
1052 50	2052 25	Surcharge - late provisional filing fee or cover sheet	
1053 130	1053 130	Non-English specification	
1812 2,520	1812 2,520	For filing a request for ex parte reexamination	
1804 920*	1804 920*	Requesting publication of SIR prior to Examiner action	
1805 1,840*	1805 1,840*	Requesting publication of SIR after Examiner action	
1251 110	2251 55	Extension for reply within first month	
1252 420	2252 210	Extension for reply within second month	
1253 950	2253 475	Extension for reply within third month	
1254 1,480	2254 740	Extension for reply within fourth month	
1255 2,010	2255 1,005	Extension for reply within fifth month	
1401 330	2401 165	Notice of Appeal	
1402 330	2402 165	Filing a brief in support of an appeal	
1403 290	2403 145	Request for oral hearing	
1451 1,510	1451 1,510	Petition to institute a public use proceeding	
1452 110	2452 55	Petition to revive - unavoidable	
1453 1,330	2453 665	Petition to revive - unintentional	
1501 1,330	2501 665	Utility issue fee (or reissue)	
1502 480	2502 240	Design issue fee	
1503 640	2503 320	Plant issue fee	
1460 130	1460 130	Petitions to the Commissioner	
1807 50	1807 50	Processing fee under 37 CFR 1.17(q)	
1806 180	1806 180	Submission of Information Disclosure Stmt	
8021 40	8021 40	Recording each patent assignment per property (times number of properties)	
1809 770	2809 385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810 770	2810 385	For each additional invention to be examined (37 CFR 1.129(b))	
1801 770	2801 385	Request for Continued Examination (RCE)	
1802 900	1802 900	Request for expedited examination of a design application	
Other fee (specify) _____			
*Reduced by Basic Filing Fee Paid		SUBTOTAL (3)	(\$ 0.00)

(Complete if applicable)

Name (Print/Type)	Winston Hsu	Registration No. (Attorney/Agent)	41,526	Telephone	886289237350
Signature			Date	4/15/2004	

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PTO/SB/02B (11-00)

Approved for use through 10/31/2002. OMB 0651-0032

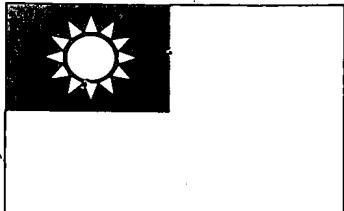
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DECLARATION -- Supplemental Priority Data Sheet

Additional foreign applications:

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中華民國經濟部智慧財產局

INTELLECTUAL PROPERTY OFFICE
MINISTRY OF ECONOMIC AFFAIRS
REPUBLIC OF CHINA

茲證明所附文件，係本局存檔中原申請案的副本，正確無訛，
其申請資料如下：

This is to certify that annexed is a true copy from the records of this office of the application as originally filed which is identified hereunder:

申請日：西元 2003 年 04 月 29 日
Application Date

申請案號：092110249
Application No.

申請人：中強光電股份有限公司
Applicant(s)

局長

Director General

蔡練生

發文日期：西元 2004 年 1 月 12 日
Issue Date

發文字號：09320040750
Serial No.

申請日期：	IPC分類
申請案號：	

(以上各欄由本局填註)

發明專利說明書

一、 發明名稱	中文	光機組裝方法及裝置
	英文	Assembling method and apparatus for light engine
二、 發明人 (共1人)	姓名 (中文)	1. 陳國文
	姓名 (英文)	1. Kuo-Wen Chen
	國籍 (中英文)	1. 中華民國 TW
	住居所 (中 文)	1. 新竹科學工業園區新竹市力行路11號
	住居所 (英 文)	1. No. 11. Li Hsin Rd. Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
三、 申請人 (共1人)	名稱或 姓名 (中文)	1. 中強光電股份有限公司
	名稱或 姓名 (英文)	1. Coretronic Corporation
	國籍 (中英文)	1. 中華民國
	住居所 (營業所) (中 文)	1. 新竹科學工業園區新竹市力行路11號 (本地址與前向貴局申請者相同)
	住居所 (營業所) (英 文)	1. No. 11. Li Hsin Rd. Science-Based Industrial Park, Hsinchu, Taiwan, R.O.C.
	代表人 (中文)	1. 張威儀
	代表人 (英文)	1. Wade Chang

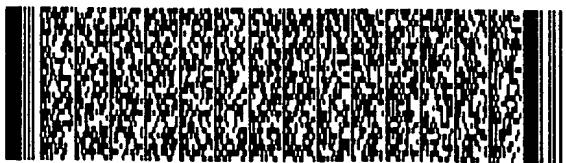


四、中文發明摘要 (發明名稱：光機組裝方法及裝置)

一種光機組裝方法及裝置，首先將光機固設於該承載座上，後置於殼體內，再提供一調整裝置並連接於承載座，後利用調整裝置於殼體外進行光機位置調整，待調整完成後再以填膠固定該承載座，待膠劑固化後移行裝置於外部進行調整時不會受空間限制而可快速調整且可降低成本；另外，調整裝置透過承載座進行光機調整，使得調整裝置之夾持不受光機結構限制，而增加使用彈性。

陸、英文發明摘要 (發明名稱：Assembling method and apparatus for light engine)

The invention is provided an assembling method and apparatus for light engine. The method includes the steps of fixing a light engine on the carrier, placing it into a casing, providing an adjusting apparatus installed outside of the casing and connected to the carrier, adjusting the positions of light engine, fixing the carrier to the casing via the glue, and removing the



四、中文發明摘要 (發明名稱：光機組裝方法及裝置)

陸、英文發明摘要 (發明名稱：Assembling method and apparatus for light engine)

adjusting apparatus to assemble the light engine to the casing. Therefore, it can reduce the assembling time and cost, and the adjusting apparatus and carrier can be applied to various light engines.



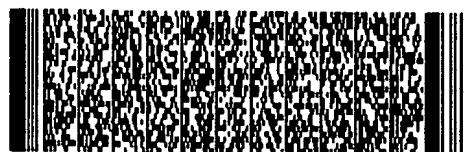
四、中文發明摘要 (發明名稱：光機組裝方法及裝置)

伍、(一)、本案代表圖為：第 3 A 圖

(二)、本案代表圖之元件代表符號簡單說明：

光機	2 1
承載座	2 2
調整裝置	2 3
夾爪	2 3 1
滑軌	2 4
殼體	2 5

陸、英文發明摘要 (發明名稱：Assembling method and apparatus for light engine)



一、本案已向

國家(地區)申請專利

申請日期

案號

主張專利法第二十四條第一項優先

二、主張專利法第二十五條之一第一項優先權：

申請案號：

日期：

三、主張本案係符合專利法第二十條第一項第一款但書或第二款但書規定之期間

日期：

四、有關微生物已寄存於國外：

寄存國家：

寄存機構：

寄存日期：

寄存號碼：

有關微生物已寄存於國內(本局所指定之寄存機構)：

寄存機構：

寄存日期：

寄存號碼：

熟習該項技術者易於獲得，不須寄存。



五、發明說明 (1)

【發明所屬之技術領域】

本發明係有關背投影電視，尤其關於背投影電視中光機組裝方法及裝置。

【先前技術】

請參閱第1圖所示，習知背投影電視係由光機產生一影像光束需經複數個反射鏡 $2A$ 、 $2B$ 反射，必須精確對光路徑以縮小體積，由於光束經數次反射，準光束投射方向，才能將影像光束投射於螢幕上。



五、發明說明 (2)

【發明內容】

本發明之一目的，係提供一種光機組裝方法及裝置，先將光機固設於一承載座上，後置於殼體內，再利調整裝置調整承載座，調整後以填膠固定，並縮小系統積體，以達到縮短組裝工時、降低成本及用載座。

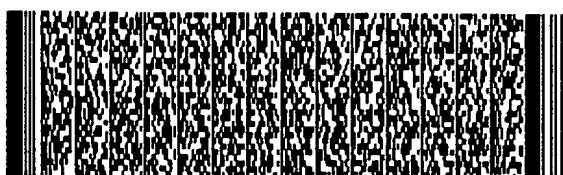
本發明之另一目的，係提供一種光機組裝方法及裝置，利用調整裝置夾持承載座以進行光機調整，使得調整裝置不受光機結構限制，而增加使用彈性。

為達上述目的，本發明之光機組裝方法及裝置，首先將光機固設於該承載座上，後置於殼體內，再利調整裝置並連接於承載座，後完成裝置，而完成調整後可進行光機裝設；由於，另將光機裝置並連接於承載座，後完成裝置，而完成調整後可進行光機裝設；因此，另置調整裝置於外部進行調整，待移除調整裝置後，可快速進行光機調整，使得調整裝置不受光機結構限制，故可增加使用彈性。

【實施方式】

有關本發明為達到上述目的，所採用之技術手段及其餘功效，茲舉一較佳實施例，並配合圖式加以說明如下：

請參閱第3A圖所示，本發明之光機組裝裝置，係先將光機21固定於承載座22上，再將一前端具有夾



五、發明說明（3）

因此，請參閱第4圖，本發明光機組裝方法其步驟後承包括：首先將一光機21固設於一承載座22上，並挾持該機置於一殼體25內，再提供一調整裝置23於殼體外，該承載座22，接著利用調整裝置23於固定該承載座22，1位置調整，待調整完成後以填膠固定。

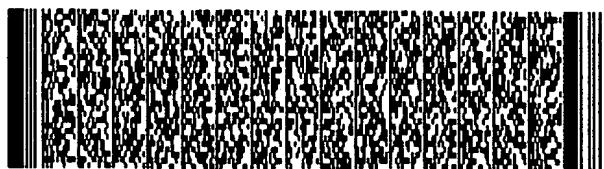


五、發明說明 (4)

最後將該調整裝置 23 移除，俾使光機 21 組裝於該殼體 25 內。

機進裝置，此種機械直接夾持，與利用，於各項調整，因此整裝，不致產生彈性。

請參閱第5圖所示，當光機3·1需進行多軸向調整時，可採用複數個承載座3·2A、3·2B對應有一調整裝置3·3A、3·3B，使得調整功能可分散於每一組調整裝置，而簡化調整裝置之複雜性及縮短調整工時，達到降低成本。



五、發明說明 (5)

以上所述，僅用以方便說明本發明之較佳實施例，本發明之範圍不限於該等較佳實施例，凡依本發明所做的任何變更，於不脫離本發明之精神下，皆屬本發明申請專利範圍。



圖式簡單說明

【圖式簡要說明】

第 1 圖，係習知背投影電視之側視圖。

第 2 圖，係習知光機調整裝置圖。

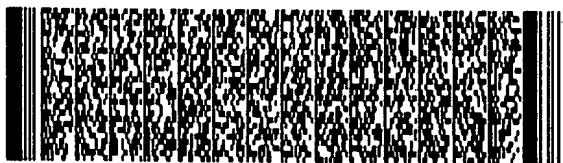
第 3 A 圖、第 3 B 圖、第 3 C 圖、第 3 D 圖，係本發明光機組裝方法之示意圖。

第 4 圖，係本發明光機組裝方法流程圖。

第 5 圖，係本發明光機組裝方法採用之調整裝置與承載座外觀圖。

【圖號簡要說明】

光機	2 1
承載座	2 2
通孔	2 2 1
調整裝置	2 3
夾爪	2 3 1
滑軌	2 4
殼體	2 5
固定柱	2 5 1
光機	3 1
承載座	3 2 A 、 3 2 B
調整裝置	3 3 A 、 3 3 B



六、申請專利範圍

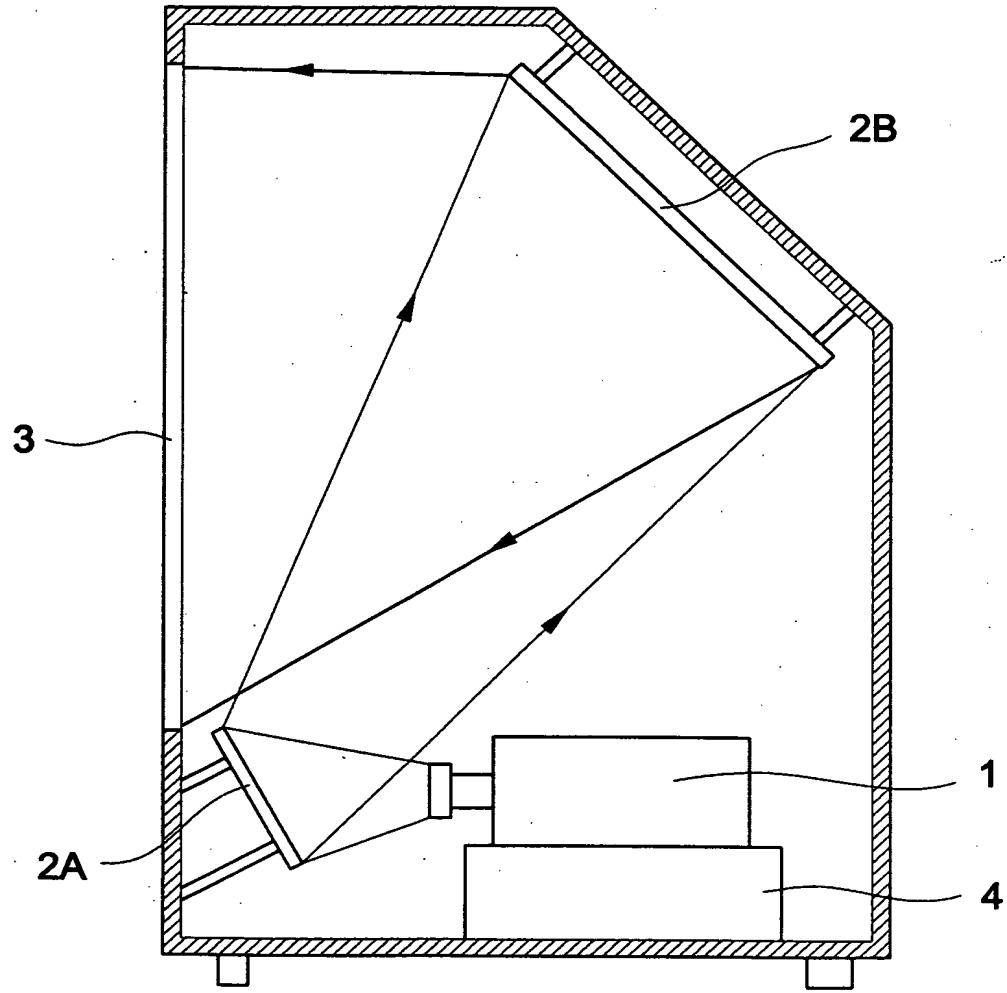
- 1、一種光機組裝方法，係包括：
 - (A) 將一光機固設於一承載座上，再置於一殼體內；
 - (B) 提供一調整裝置並連接於該承載座；
 - (C) 利用調整裝置於殼體外進行光機位置調整；
 - (D) 填膠固定該承載座；以及
 - (E) 移除該調整裝置。
- 2、如申請專利範圍第1項所述之光機組裝方法，其中該調整裝置前端設置有至少一夾爪，藉由該夾爪夾持該承載座。
- 3、如申請專利範圍第1項所述之光機組裝方法，其中該承載座具有至少一通孔，該殼體內設有至少一固定柱，當承載座置於該殼體內時，可利用通孔與該固定柱相配合而定位。
- 4、如申請專利範圍第3項所述之光機組裝方法，其中該填膠固定承載座包括：
將膠劑填充於通孔與固定柱間；以及
利用照射紫外光束將膠劑固化，而固定承載座。
- 5、如申請專利範圍第2項所述之光機組裝方法，其中該承載座可利用複數個承載座層疊而成，且每一承載座各有一夾爪夾持調整。
- 6、一種光機組裝裝置，其包括：
一殼體，其內部具有至少一固定柱；
至少一承載座，係用以供一光機承載，且相對應於



六、申請專利範圍

該固定柱設有通孔；
一調整裝置，係設於該殼體外以調整光機位置，且
其前端設有至少一夾爪，以供夾持該承載座；以及
一黏劑，係用以將該承載座固定於該殼體內。

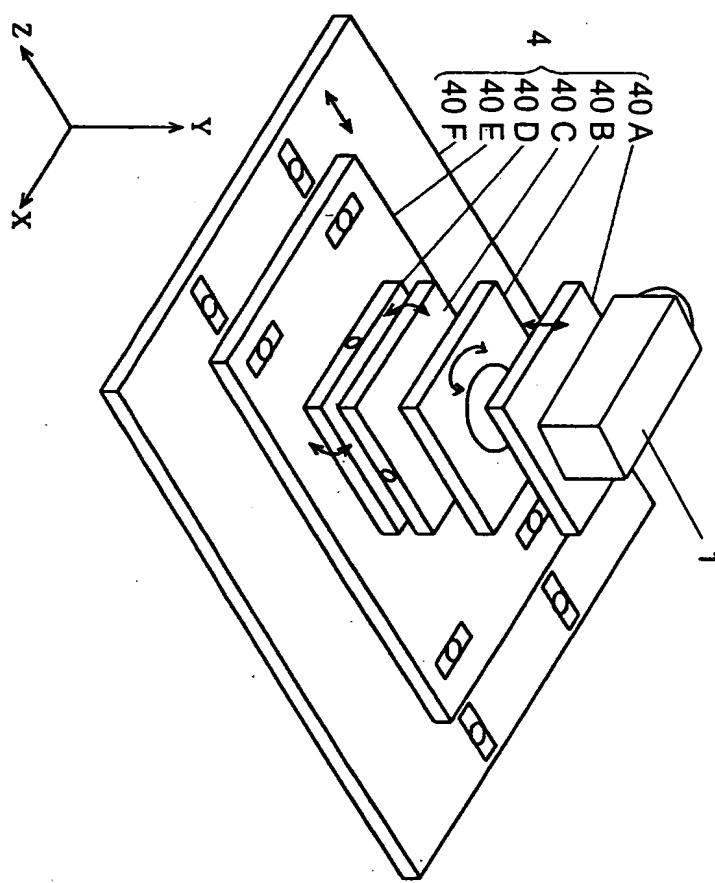




第 1 圖

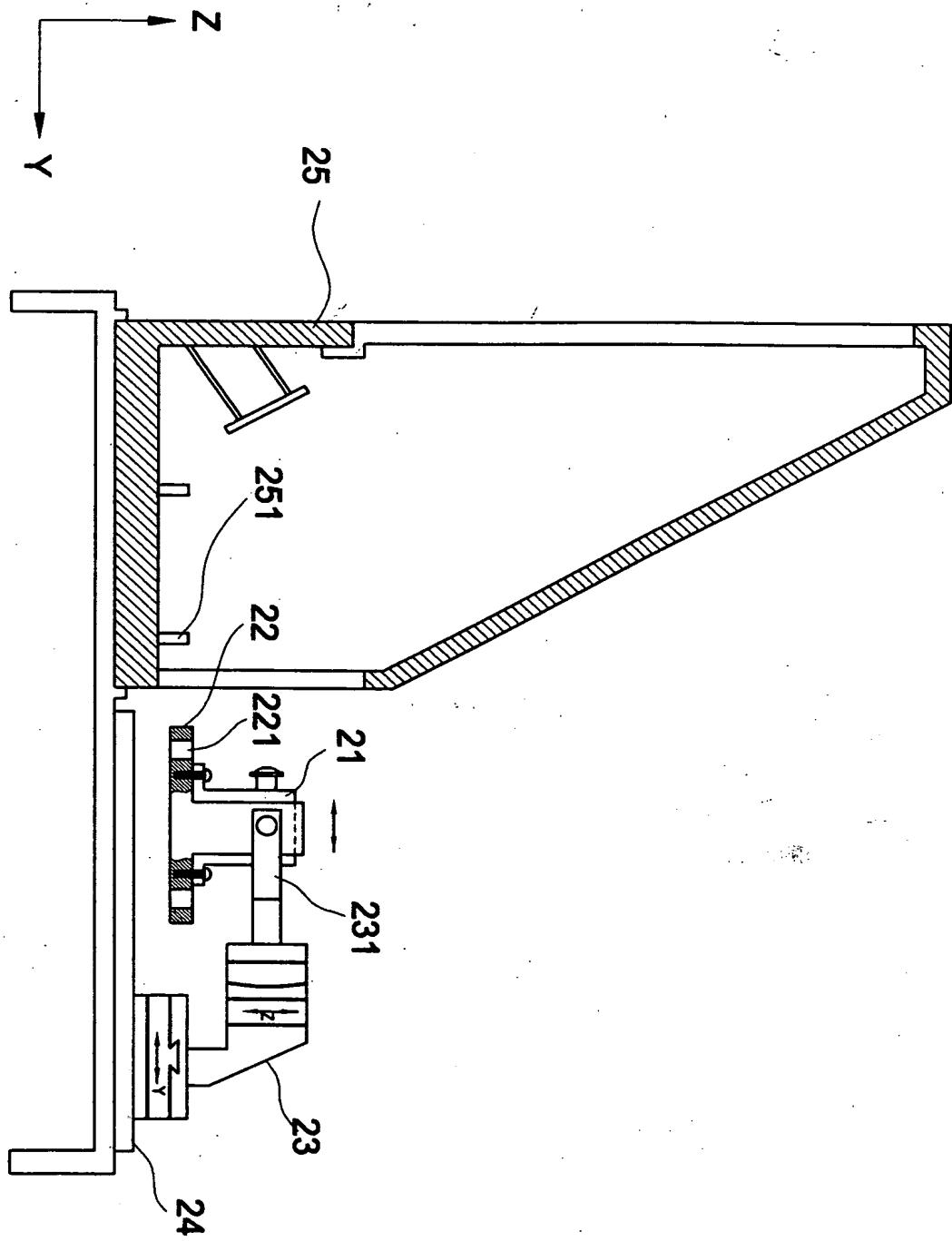
圖式

第 2 圖

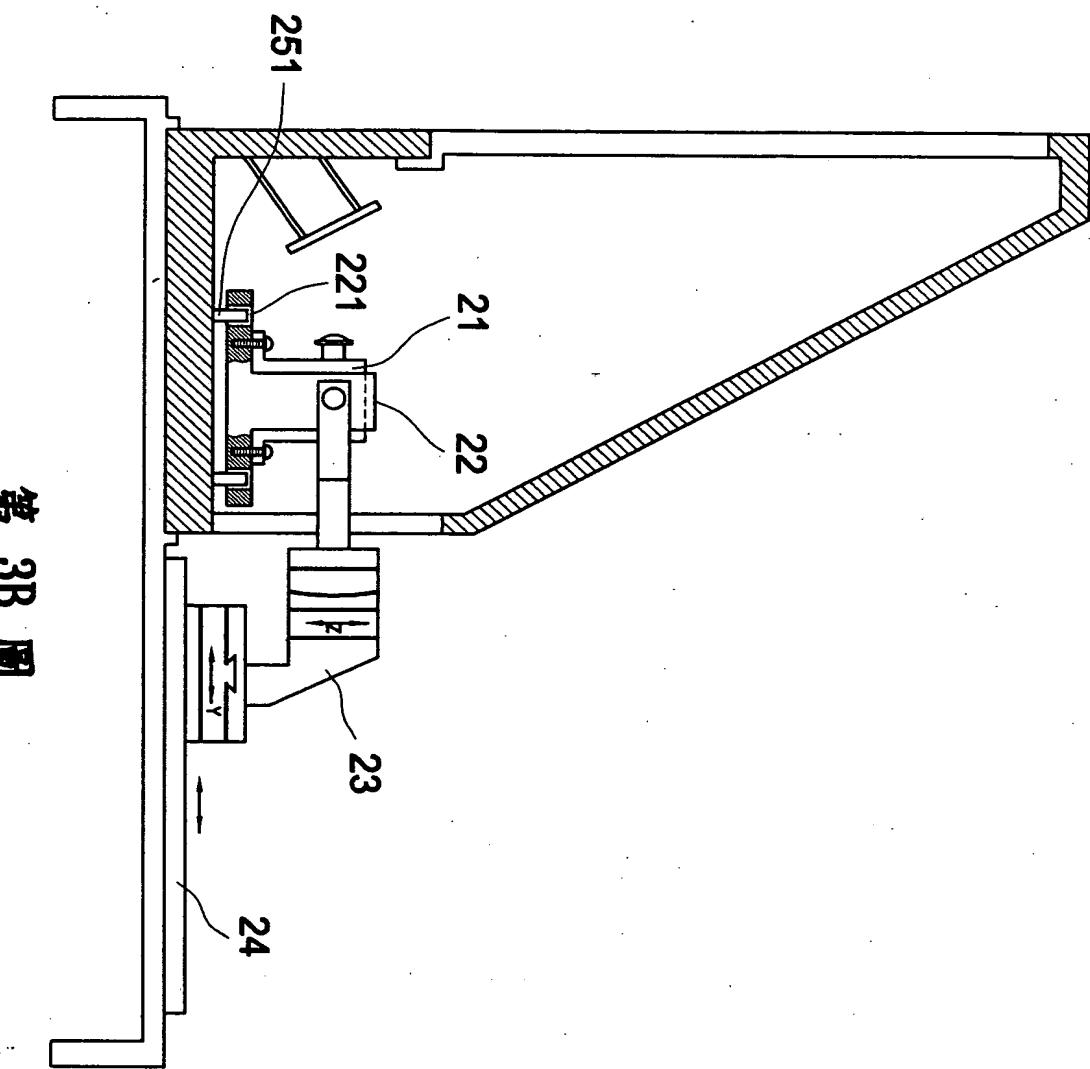


圖式

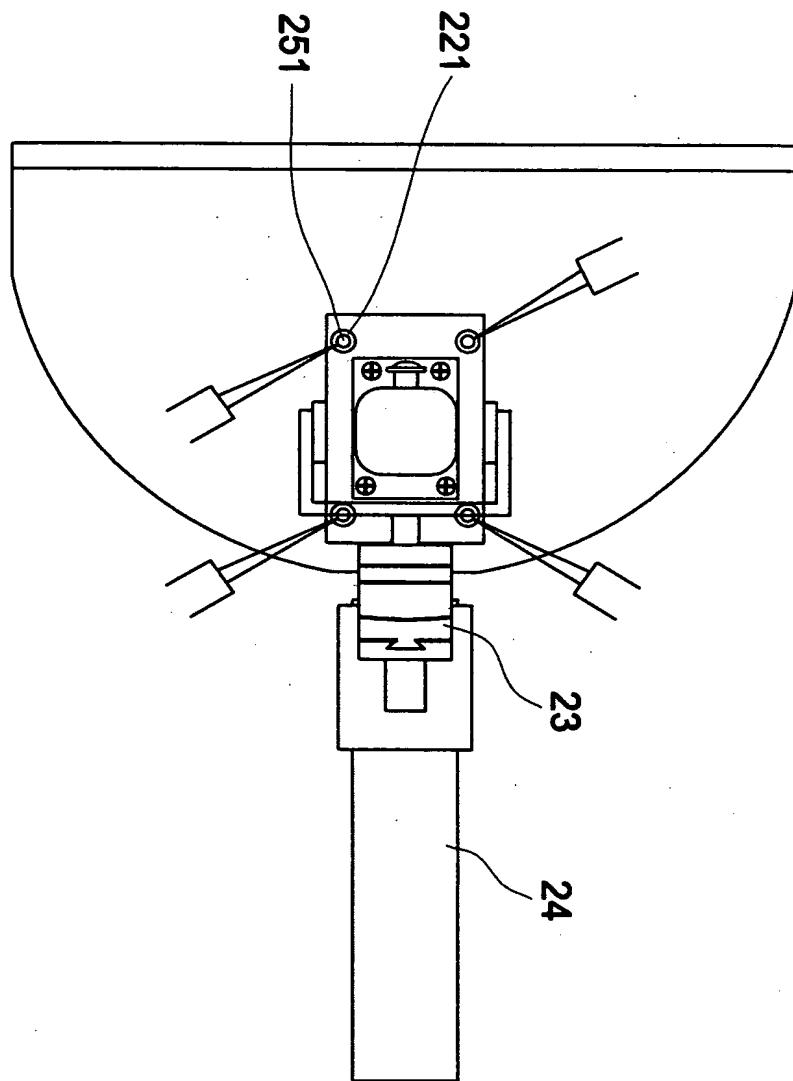
第 3A 圖



第 3B 圖

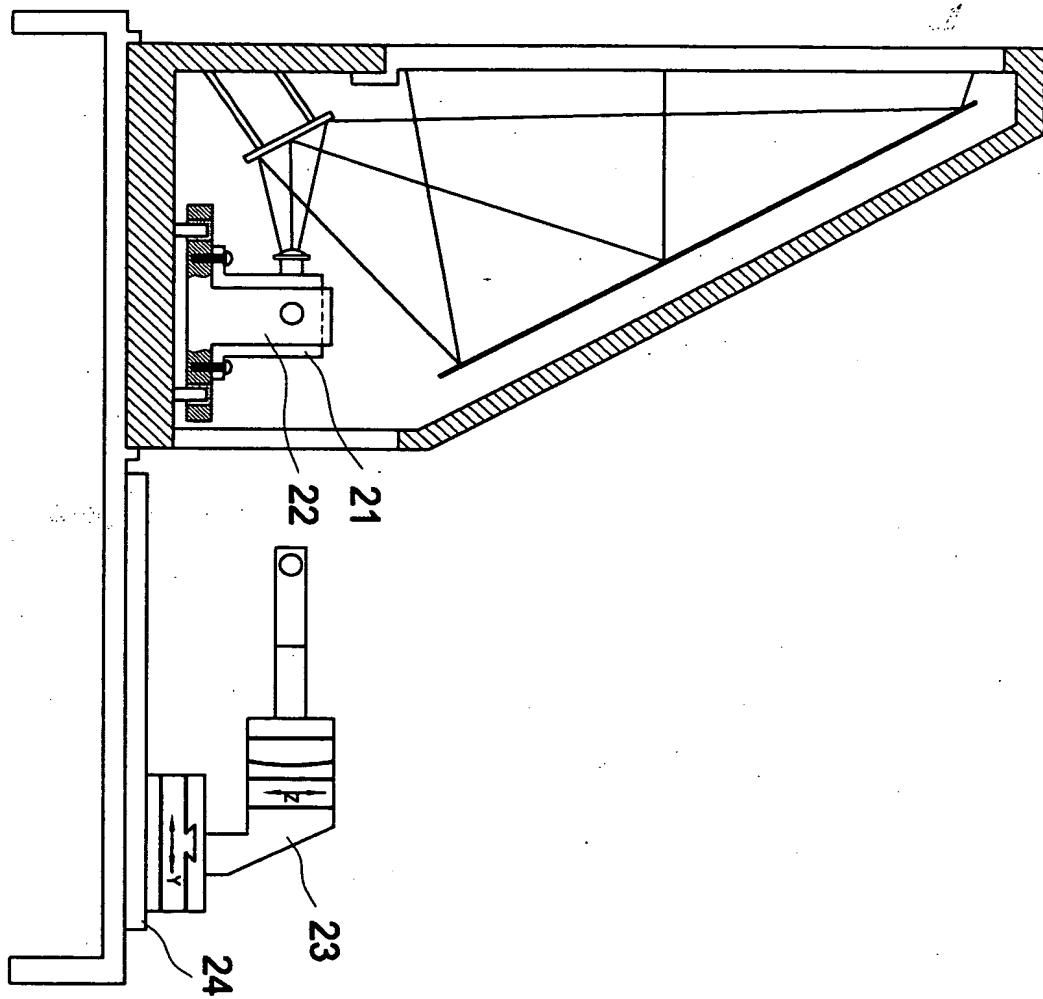


第 3C 圖

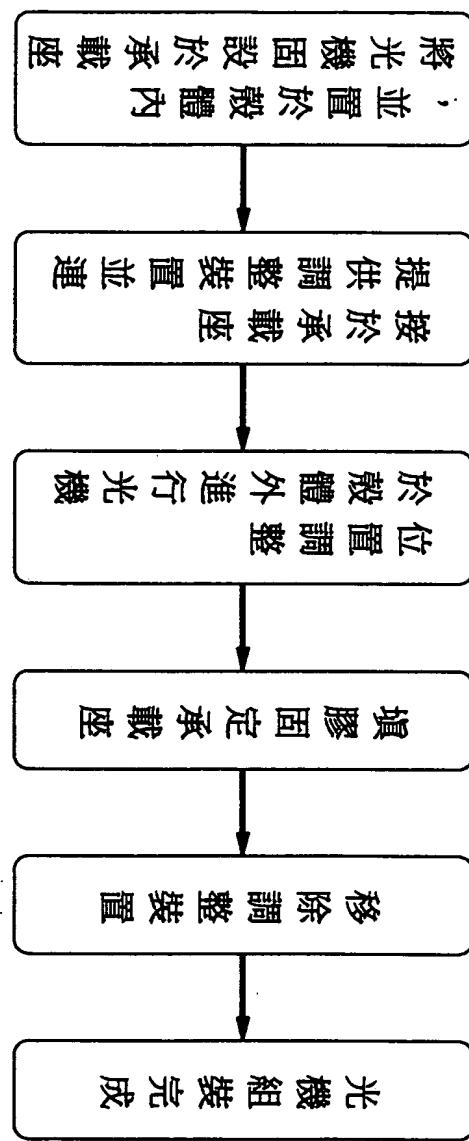


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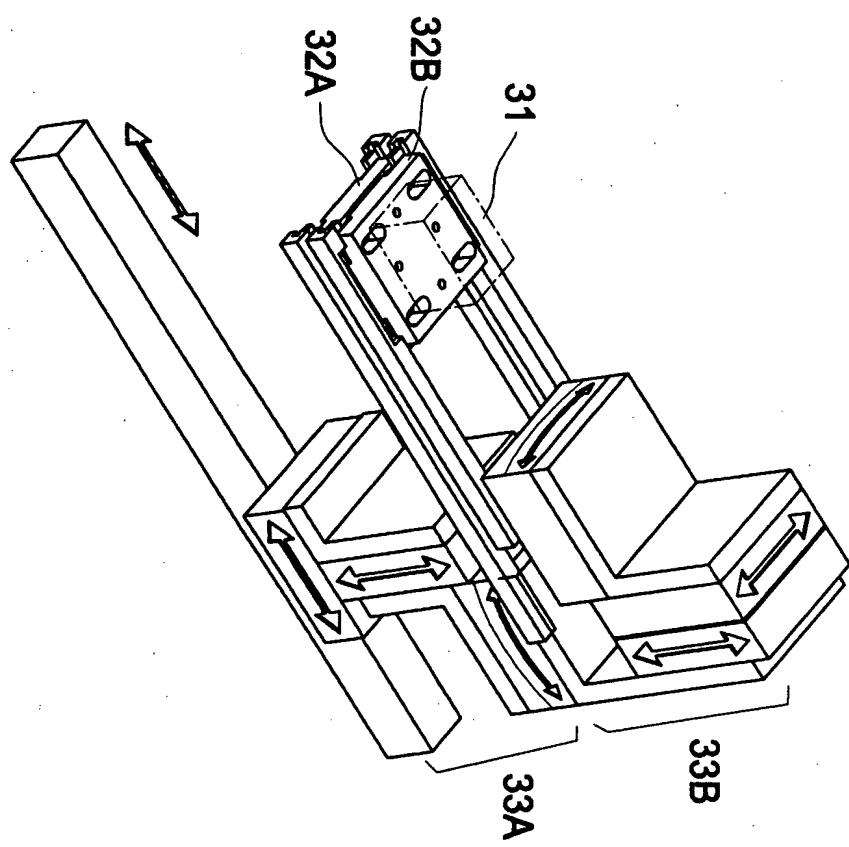
第 3D 圖



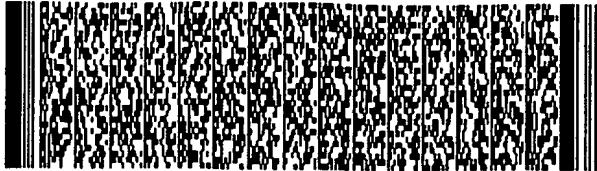
第4圖



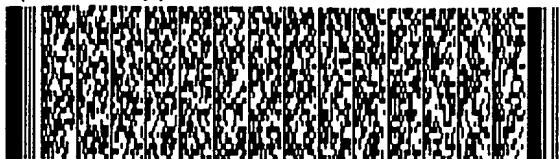
第 5 圖



第 1/13 頁



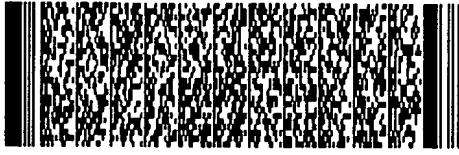
第 2/13 頁



第 2/13 頁



第 3/13 頁



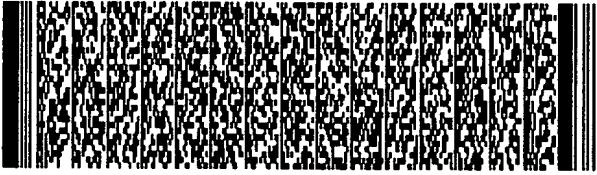
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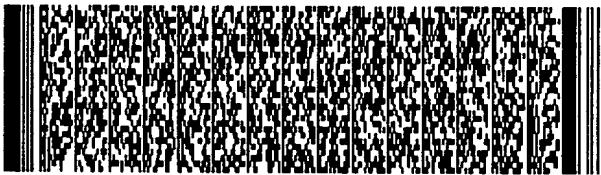
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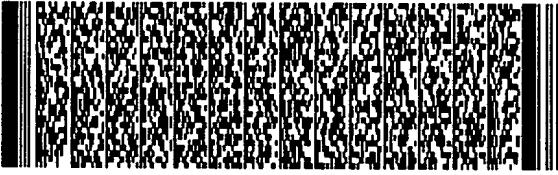
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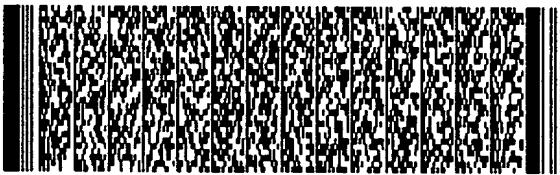
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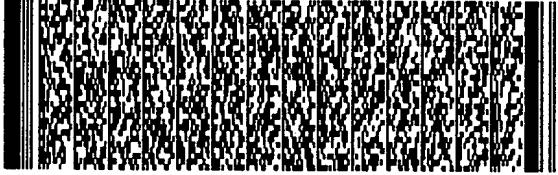
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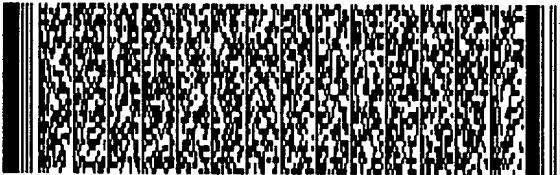
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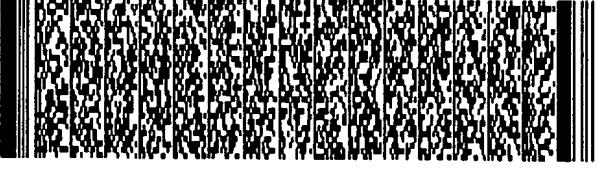
第 8/13 頁



第 8/13 頁



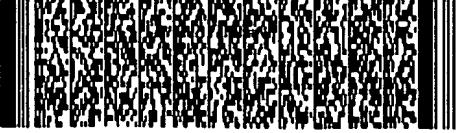
第 9/13 頁



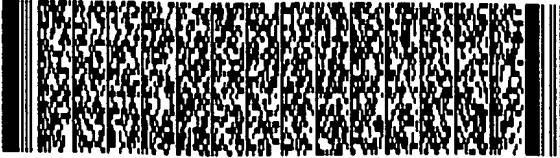
第 9/13 頁



第 10/13 頁



第 11/13 頁

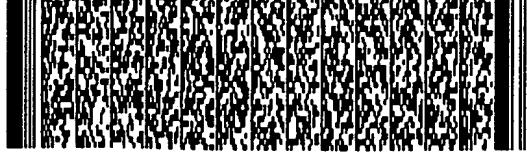


申請案件名稱：光機組裝方法及裝置

第 12/13 頁



第 12/13 頁



第 13/13 頁

